

### **REMARKS/ARGUMENTS**

Reconsideration of the present application, as amended, is respectfully requested.

The Abstract was objected to for excessive length. Applicant submits herewith a substitute Abstract to replace the original Abstract.

With respect to the claims, claims 3-7 and 16 were objected to because of certain informalities. The Examiner found that the term, "metal sleeves," in claim 3 to be objectionable with claims 4-7 inheriting the same deficiency. Claims 3, 5-7 have been amended accordingly. Claim 16 was considered incomplete because of a blank space; the Applicant has inserted the number,--300--, as suggested by the Examiner.

Substantively, all pending claims 1-20 were rejected. Claims 1, 8-17 and 18 were rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,701,011, which issued October 20, 1997 to W. L. Emkey *et al.* in view of U.S. Patent No. 6,014,483, which issued January 11, 2000 to M. Thual *et al.* and U.S. Patent No. 6,280,099, which issued August 28, 2001 to Y. Wu. In rejecting independent claim 1, the Examiner stated in his combination of references, "Wu discloses a wavelength filter comprising a plurality of dielectric coatings deposited on an end of an optical fiber segment for forming a wavelength-dependent optical filter. It would have been obvious to provide a plurality of dielectric coatings of Wu on the end of the multimode fiber segment in place of element 30 of Emkey et al. to provide a wavelength filter having improved coupling efficiency and reduced size."

With due respect to the Examiner, the Wu patent has no such teaching. Rather, Wu describes a method by which a thin-film filter, a substrate upon which multiple layers of dielectric filter coatings are deposited (see col. 1, lines 50-55 and col. 2, lines 59-61), is epoxied to the endsurface of an optical fiber. See col. 2, line 62 to col. 3, line 8. The described method overcomes a perceived problem of the insertion of the thin-film filter between two optical fibers. See col. 2, lines 9-19.

To better point out his invention, the Applicant has amended independent claim 1. The other independent claim 13 has been left alone. As pointed above, the Wu patent is directed to the problem of fixing of “a dielectric multilayer film formed on a fluorinated polyimide thin film (i.e., the substrate -Applicant’s parenthesis)” (col. 1, lines 52-53) between two optical fibers. Hence the Applicant’s invention as recited in claim 1 is distinguishable from the Wu patent. Claim 1 now reads, “...a plurality of dielectric coatings directly on an endsurface of said second multimode optical fiber segment....” There is no separate substrate for the dielectric coatings, as taught by Wu. In a similar vein, method claim 13 recites the step of “depositing a plurality of dielectric layers upon an end surface of said second multimode fiber segment opposite said first multimode fiber segment, said plurality of dielectric layers defining a wavelength- dependent filtering function....” The thin-film filter has its dielectric layers deposited on a thin-film substrate removed from any optical fiber. Hence independent claims 1 and 13 are distinguishable from the cited prior art and should be patentable.

Claims 2-7, 19 and 20 were rejected under 35 U.S.C. §103(a) as being obvious over the cited Emkey patent in view of the cited Thual and Wu patents as applied to claim 1 or 13, and further in view of U.S. Patent No. 5,134,470, which issued July 28, 1992 to R.G. Ravetti. In supporting her rejection, the Examiner stated. “Ravetti discloses an optical fiber interconnection comprising metal coated optical fibers and a cylindrical metal-coated glass capillary (i.e. metal sleeve) engaging portions of the end sections of optical fibers having a metal coating thereon....It is additionally noted that a fully metal sleeve would have been substantially equivalent to the metal-coated glass capillary and thus would have been obvious to one having ordinary skill in the art. Ravetti further discloses the diameter of the sleeve to be 125  $\mu\text{m}$ .”

These combinations of references are self-contradictory and cannot be made. In the Wu patent, a UV-cured epoxy is used to fix the thin-film filter in place once alignment is made. “Upon completion of the optical axis alignment, ultraviolet rays are irradiated from outside to expose the adhesive agents between the pair of ferrules 1 and 2 to the ultraviolet rays so as to instantly fix the pair of ferrules 1 and 2 and the thin-film filter 9 into one piece.” Wu, col. 5, lines 21-25. But the Ravetti uses a metal (whether fully metal or metal-coated) sleeve for

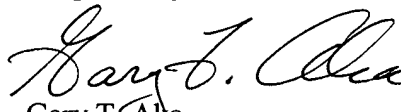
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alignment, as suggested by the Examiner. The metal sleeve seriously impedes the action of the ultraviolet rays. The epoxy cannot be irradiated and cured as taught by Wu.

Thus claims 2-7, 19 and 20 are distinguishable over the cited prior art and should be allowable. Furthermore, these claims, as well as the remaining dependent claims 8-12 and 14-18, should be allowable for at least being dependent upon allowable independent claims, as argued above.

Therefore, for the foregoing reasons, Applicant believes all the pending claims 1-20 are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned attorney at (408) 446-7687.

Respectfully submitted,

  
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